



# UNITED STATES PATENT AND TRADEMARK OFFICE

UNITED STATES DEPARTMENT OF COMMERCE  
United States Patent and Trademark Office  
Address: COMMISSIONER FOR PATENTS  
P.O. Box 1450  
Alexandria, Virginia 22313-1450  
www.uspto.gov

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/092,252	03/07/2002	Gang Wu	4035-0148P	9279
2292 7590 12/28/2006 BIRCH STEWART KOLASCH & BIRCH PO BOX 747 FALLS CHURCH, VA 22040-0747			EXAMINER ROBERTS, BRIAN S	
		ART UNIT 2616	PAPER NUMBER	
SHORTENED STATUTORY PERIOD OF RESPONSE 3 MONTHS		NOTIFICATION DATE 12/28/2006	DELIVERY MODE ELECTRONIC	

Please find below and/or attached an Office communication concerning this application or proceeding.

If NO period for reply is specified above, the maximum statutory period will apply and will expire 6 MONTHS from the mailing date of this communication.

Notice of this Office communication was sent electronically on the above-indicated "Notification Date" and has a shortened statutory period for reply of 3 MONTHS from 12/28/2006.

Notice of the Office communication was sent electronically on above-indicated "Notification Date" to the following e-mail address(es):

mailroom@bskb.com

<b>Office Action Summary</b>	<b>Application No.</b>	<b>Applicant(s)</b>	
	10/092,252	WU ET AL.	
	<b>Examiner</b>	<b>Art Unit</b>	
	Brian Roberts	2616	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --  
**Period for Reply**

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

#### **Status**

1) Responsive to communication(s) filed on 31 October 2006.  
 2a) This action is **FINAL**.                    2b) This action is non-final.  
 3) Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

#### **Disposition of Claims**

4) Claim(s) 1 and 2 is/are pending in the application.  
 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.  
 5) Claim(s) \_\_\_\_\_ is/are allowed.  
 6) Claim(s) 1 and 2 is/are rejected.  
 7) Claim(s) \_\_\_\_\_ is/are objected to.  
 8) Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

#### **Application Papers**

9) The specification is objected to by the Examiner.  
 10) The drawing(s) filed on \_\_\_\_\_ is/are: a) accepted or b) objected to by the Examiner.  
 Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
 Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).  
 11) The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

#### **Priority under 35 U.S.C. § 119**

12) Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).  
 a) All    b) Some \* c) None of:  
 1. Certified copies of the priority documents have been received.  
 2. Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.  
 3. Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

#### **Attachment(s)**

1) Notice of References Cited (PTO-892)  
 2) Notice of Draftsperson's Patent Drawing Review (PTO-948)  
 3) Information Disclosure Statement(s) (PTO/SB/08)  
 Paper No(s)/Mail Date \_\_\_\_\_

4) Interview Summary (PTO-413)  
 Paper No(s)/Mail Date. \_\_\_\_\_  
 5) Notice of Informal Patent Application  
 6) Other: \_\_\_\_\_

## **DETAILED ACTION**

- Applicant's RCE filed on 10/31/2006 is acknowledged.
- Claims 1 and 2 remain pending.

### ***Claim Objections***

1. Claim 1 is objected to because of the following informalities:
  - In line 12, "based" should read --base--
  - In line 12, "enabling" should read --enables-- in order to maintain a consistent verb tense throughout the claim.

Appropriate correction is required.

### ***Claim Rejections - 35 USC § 112***

2. The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.
3. Claims 1 and 2 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

- In reference to claim 1

The phrase "said heterogeneous radio communication networks being simultaneously accessible" is indefinite because it is unclear what the heterogeneous radio communication networks are simultaneously accessible by. For examination

Art Unit: 2616

purposes, the examiner interprets the phrase to mean that a plurality of mobile hosts can simultaneously access a plurality of heterogeneous radio communication networks.

The terms "service quality" and "seamlessly" in claim 1 lines 1 and 2 are relative terms which render the claim indefinite. The terms "service quality" and "seamlessly" are not defined by the claim, the specification does not provide a standard for ascertaining the requisite degree, and one of ordinary skill in the art would not be reasonably apprised of the scope of the invention.

In line 11, the phrase "in one area" is indefinite because it is unclear what the one area is.

In line 14, the phrase "corresponding areas" is indefinite because it is unclear what the areas are and how the common networks correspond to the area.

- In reference to claim 2

The terms "prompt" and "seamless" in claim 2 line 3 and 1 are relative terms which render the claim indefinite. The terms "prompt" and "seamless" are not defined by the claim, the specification does not provide a standard for ascertaining the requisite degree, and one of ordinary skill in the art would not be reasonably apprised of the scope of the invention. The examiner recommends deleting the terms from the claim.

***Claim Rejections - 35 USC § 103***

4. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

5. Claims 1-2, as best understood, are rejected under 35 U.S.C. 103(a) as being unpatentable over Mizutani et al. (US 6798757) in view of Walsh et al. "Hybrid Networks – A Step Beyond 3G".

- In reference to claim 1

In Figures 1 and 3, Mizutani et al. teaches a mobile system that includes:

- A mobile manager (34) that keeps track of the movement of mobile stations and functions as a home agent for mobile stations that move outside the a common core network (30) (column 3 lines 57-65) (*A mobility manager that supports roaming mobile hosts*) where a plurality of mobile core networks (30) form a common core network
- A resource manager (52) that administers resource usage in the common core network (30) (column 5 line 41- column 6 line 7) (*A resource manger that coordinates traffic distribution*) and an AAA server (39) that provides admission control to support the traffic distribution in the common core network. Mizutani teaches that the function of various hosts may be implemented in a signal host (column 3 lines 49-65) so that the resource manger could perform the services of the AAA server (39).
- The common core network (30) is a homogenous mobile network system and supports mobile stations roaming within the homogenous common core network (30)

- A common core network (30) enabling Internet access via a gateway router (33A) and access to a base station (21A-F) inherently containing a base station interface
- Inherently includes a plurality of common core networks (30) each of which is the same as that residing in said area, and that are arranged in corresponding areas via the Internet.

Mizutani et al. does not explicitly teach the common core network supporting roaming between heterogeneous radio communication networks based on a network layer of the OSI model while ensuring service quality.

In Figure 6, Walsh et al. teaches a common core network supporting roaming between heterogeneous radio communication networks based on the network layer of the OSI model while ensuring service quality. (pg. 111 section III.1 – pg. 112 section III.2)

It would have been obvious to a person of ordinary skill in the art at the time of the invention to modify the system and method of Mizutani et al. to include the common core network supporting roaming between heterogeneous radio communication networks based on the network layer of OSI model while ensuring service quality as taught by Walsh et al. because it allows different radio access networks to handle only those functions specifically related to a distinct radio access technology and provide a specific service using the different access systems technologies.

- In reference to claim 2

The combination of Mizutani et al. and Walsh et al. teach a system and method that covers substantially all limitations of the parent claim. In Figures 10-13, Mizutani et al. further teaches a mobile system that includes:

- A Micro mobility management function supporting, in the common core network (30), handover for any mobile station roaming between base stations (21 A-F) belonging to homogeneous radio communication networks (column 11 line 17 – column 12 line 23)
- A Macro mobility management function supporting, between a plurality of common core networks (30), handover for any mobile station roaming between base stations (21 A-F) belonging to homogeneous radio communication networks (column 12 line 24 – column 13 line 45)

***Response to Arguments***

6. Applicant's arguments with respect to claims 1 and 2 have been considered but are moot in view of the new ground(s) of rejection.

***Conclusion***

7. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Brian Roberts whose telephone number is (571) 272-3095. The examiner can normally be reached on M-F 10:00-7:30.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Hassan Kizou can be reached on (571) 272-3088. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

BSR  
12/21/2006



HA  
SSAN KIZOU  
SUPERVISORY PATENT EXAMINER  
TECHNOLOGY CENTER 2600